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TITLE: P-TYPE ELECTRODE STRUCTURE OF 2-6 COMPOUND  
SEMICONDUCTOR

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ABSTRACT:

PURPOSE: To facilitate the implantation of holes into a  
p-type 2-6  
semiconductor including sulfur or selenium and lessen the  
resistance of a p  
electrode.

CONSTITUTION: This device has a p-type 3-5 semiconductor  
layer 13 consisting of  
AlGaAs, next to the p-type 2-6 semiconductor layer 12  
consisting of p-type 2-6  
compound semiconductor including sulfur or selenium. The  
position of energy at  
the end of the valance electron band of AlGaAs mixed  
crystal is the middle  
between the 2-6 semiconductor and the fermi level of metal,  
and within the  
p-type 3-5 semiconductor layer 13, it is low near the  
interface with the p-type  
semiconductor layer 12 and is high near the interface with

a p electrode 14.

The barrier at each interface becomes small by the introduction of the p-type semiconductor layer 13, and the implantation of holes 1 becomes easy, and the resistance of the p electrode sharply decreases. Therefore, the voltage applied to a light emitting diode becomes low, and a strong blue light can be emitted.

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